

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
4 November 2004 (04.11.2004)

PCT

(10) International Publication Number
WO 2004/094024 A2

(51) International Patent Classification⁷:

B01D

6th Ave NE, Thompson, North Dakota 58278 (US).
PAVLISH, John [US/US]; 42204 210th St SW, East Grand Forks, Minnesota 56721 (US).

(21) International Application Number:

PCT/US2004/012828

(74) Agent: JOHNSON, Bruce, A.; Johnson & Associates, PO Box 90698, Austin, Texas 78709-0698 (US).

(22) International Filing Date: 23 April 2004 (23.04.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/464,868 23 April 2003 (23.04.2003) US

(71) Applicant (for all designated States except US): ENERGY & ENVIRONMENTAL RESEARCH CENTER FOUNDATION, INC. [US/US]; 15 North 3rd St., PO Box 9018, Grand Forks, North Dakota 58202-9018 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

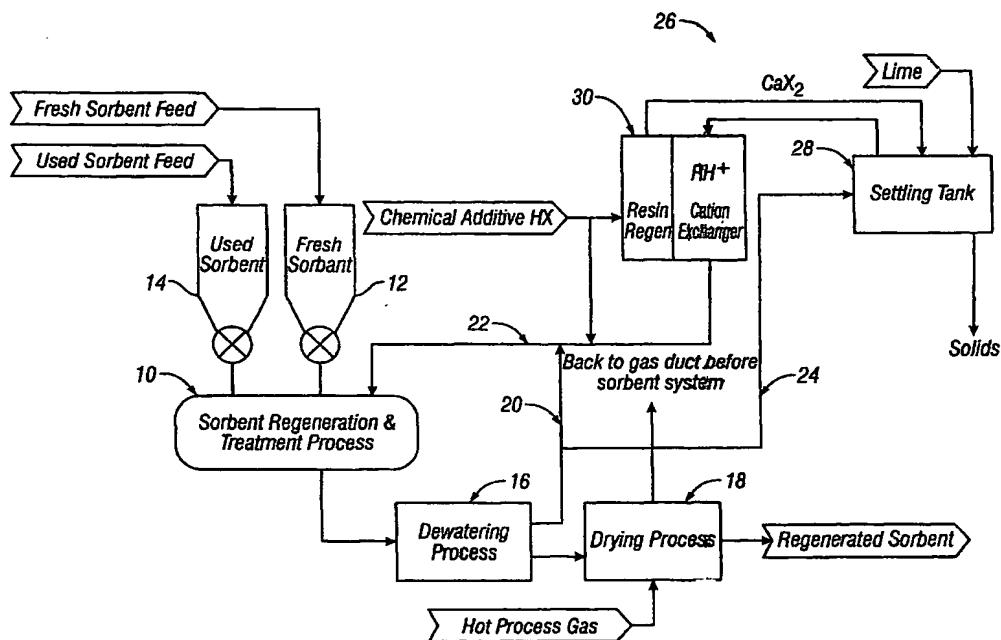
(72) Inventors; and

(75) Inventors/Applicants (for US only): OLSON, Edwin [US/US]; 223 Circle Hills Drive, Grand Forks, North Dakota 58201 (US). HOLMES, Michael [US/US]; 614

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,

[Continued on next page]

(54) Title: PROCESS FOR REGENERATING A SPENT SORBENT



WO 2004/094024 A2

(57) Abstract: A method and apparatus is provided for regenerating a sorbent that has been poisoned by components derived from flue gas. The sorbent is treated with an agent to remove the poisoning components and introduce a promoting agent into the sorbent. The method and apparatus can also be used to enhance the effectiveness of a new sorbent.



TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *without international search report and to be republished upon receipt of that report*